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Abstract

A radiation image recording and reproducing method comprising steps of: causing a stimulable phosphor to absorb a radiation having passed through an object or radiated by an object, exposing said stimulable phosphor to an electromagnetic wave having a wavelength within the range of 450-800 nm to release the radiation energy stored therein as light emission, and detecting the emitted light, in which said stimulable phosphor is divalent europium activated complex halide phosphor having the formula (I): $M''FX_aM'X'_bM'''X''_cxA:yEu^{2+}$ (I) in which M'' is at least one alkaline earth metal selected from the group consisting of Ba, Sr and Ca; M' is at least one alkali metal selected from the group consisting of Li, Na, K, Rb and Cs; M''' is at least one divalent metal selected from the group consisting of Be and Mg; M''' is at least one trivalent metal selected from the group consisting of Al, Ga, In and Tl; A is at least one metal oxide; X is at least one halogen selected from the group consisting of Cl, Br and I; each of X', X'' and X''' is at least one halogen selected from the group consisting of F, Cl, Br and I; a, b and c are numbers satisfying the conditions of $0 \leq a \leq 2$, $0 \leq b \leq 10^{-2}$, $0 \leq c \leq 10^{-2}$ and $a+b+c \geq 10^{-6}$; and x and y are numbers satisfying the conditions of $0 < x \leq 0.5$ and $0 < y \leq 0.2$, respectively. A radiation image storage panel employed for the method is also disclosed.